



Technical Data

Alternative Thioglycollate Medium, Sterile powder

MU010G

Alternative Thioglycollate Medium, Sterile powder is a gamma irradiated sterile powder recommended for evaluation of sterility in manufacturing process in accordance with USP.

Composition**

Ingredients	Gms / Litre
Pancreatic digest of casein	15.000
Yeast extract	5.000
Dextrose monohydrate	5.500
Sodium chloride	2.500
L-Cysteine	0.500
Sodium thioglycollate	0.500
pH after sterilization	7.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Sterile powder can be used directly for the evaluation of sterility in manufacturing process. For sterile liquid medium aseptically add 28.5 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml sterile distilled / purified water. Heat if necessary to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Excessive heating is detrimental.

Dispense aseptically in sterile tubes or flasks as desired.

Note:

It is preferable to use freshly prepared medium, alternatively it should be boiled and cooled just once prior to use or with reheating, toxic oxygen radicals are formed

Principle And Interpretation

Alternative Thioglycollate Medium is formulated as described in N.I.H. Memorandum (1), U.S. Pharmacopeia (2) .

Alternative Thioglycollate Medium contains sodium thioglycollate that can neutralize the bacteriostatic effect of mercurial preservatives. Absence of agar makes it suitable for testing viscous materials and devices having tubes with small lumina. Pancreatic digest of casein , yeast extract, dextrose, L-cystine provides nitrogenous and carbonaceous compounds, vitamin B complex, trace elements and other essential growth nutrients.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate.

Reaction

Reaction of 2.9% w/v aqueous solution at 25°C. pH : 7.1±0.2

pH

6.90-7.30

Growth Promotion Test

As per United States Pharmacopoeia

Sterility test

No bacterial and fungal growth is observed after 14 days at 30-35°C.

Cultural Response

MU010G: Cultural characteristics observed after an incubation at 30-35°C for not more than 3 days.

Organism	Inoculum (CFU)	Growth
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Please refer disclaimer Overleaf.

Growth Promotion Test

<i>Clostridium sporogenes</i> ATCC 19404	50 -100	luxuriant
<i>Clostridium sporogenes</i> ATCC 11437	50 -100	luxuriant
<i>Bacteroides vulgatus</i> ATCC 8482	50 -100	luxuriant

Additional Microbiological testing

<i>Staphylococcus aureus</i> ATCC 25923	50 -100	luxuriant
<i>Staphylococcus aureus</i> ATCC 6538	50 -100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	50 -100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 9027	50 -100	luxuriant
<i>Escherichia coli</i> ATCC 25922	50 -100	luxuriant
<i>Escherichia coli</i> ATCC 8739	50 -100	luxuriant
<i>Escherichia coli</i> NCTC 9002	50 -100	luxuriant
<i>Salmonella Abony</i> NCTC 6017	50 -100	luxuriant
<i>Clostridium perfringens</i> ATCC 13124	50 -100	luxuriant
<i>Bacteroides fragilis</i> ATCC 23745	50 -100	luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

- 1.N.I.H. Memorandum, 1955 : Culture Media for Sterility Tests, 4th Revision.
- 2.The United States Pharmacopoeia / National Formulary USP, 2012, The United States Pharmacopoeial Convention. Rockville, MD.

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